

ABSTRACT

The glucose concentration in a whole blood sample may be determined by providing an electrochemical sensor adapted to measure glucose and hematocrit concentrations. The hematocrit concentration of the whole blood sample is measured using the electrochemical sensor via electrochemical impedance spectroscopy. The initial glucose concentration of the whole blood sample is measured using the electrochemical sensor. The unbiased glucose concentration in the whole blood sample is calculated using the initial glucose concentration measurement and the hematocrit concentration.